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EXAMINER	
WANG, JIN CHENG	

ART UNIT	PAPER NUMBER
2672	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/674,443	FALCIONI, RICHARD A.	
	Examiner	Art Unit	
	Jin-Cheng Wang	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's arguments, see Page 1-2, filed 12/13/2005, with respect to the rejection(s) of claim(s) 1 under 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Curtin et al. US Patent No. 4,727,357.

Response to Argument

Applicant's arguments with respect to claim 1 and similar claims have been considered but are not moot in view of the new ground of rejection. For example, Ramian in view of Curtin teaches a method for generating a desired alphanumeric character, comprising: receiving a user's selection of a combination of one or more zones from a plurality of zones, wherein the plurality of zones abut one another, eliminating intervening spaces (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149); and contrasting the combination with the remainder of said plurality of zones so that the combination is essentially **removed** leaving behind a graphic symbol that resembles the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

Ramain teaches that, if the combination is contrasted with the remainder of said plurality of zones. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of zones by illuminating the curves within such combination which must be contrasted with the remainder of zones so that the drawn

curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

Curtin teaches the claim limitation of "the combination is essentially removed leaving behind a graphic symbol that resembles the desired character". For example, Curtin discloses in Fig. 6 un-selecting the bars 14 and 16 so that the remainder bars 6, 8, 10, 12, 20, 18, 22 and 24 represent or resemble the desired character "A". See column 2, lines 46-67 and column 3, lines 1-20. It is stated, "...**a user contacts selected normally activated bars to turn off their lights**. It has been found in developing the present invention that **the alphanumeric characters can be more rapidly formed by placing at least the bars forming the outer box pattern and possibly the bars extending horizontally across such box pattern in a normally activated condition. In this manner, it normally takes fewer key strokes to form each alphanumeric character**." That is to say, the bars, 6, 8, 10, 12, 20, 18, 22, 24, 14, 16 are normally lighted. The alphanumeric character "A" is formed with a fewer key strokes on the bars 14, 16 to deactivate the lights. See also column 4, lines 30-67 and column 5, lines 34-44.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Ramain's invention because Ramain's remainder of the plurality of zones corresponds to applicant's combination of one or more zones from the plurality of zones and Ramain's selection of the plurality of zones corresponds to applicant's remainder of the plurality of zones. Ramain teaches that, if the combination is contrasted with the remainder of said plurality of zones. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of zones by illuminating the curves within such combination which must be contrasted with the remainder of

zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

On the other hand, in Ramain, by positively illuminating the curves within a combination of one or more zones from a plurality of zones, Ramain thereby selects the remainder of the plurality of zones as applicant's combination of one or more zones from a plurality of zones and therefore Ramain implicitly teaches contrasting Ramain's remainder with the Remain's combination of said plurality of zones so that the remainder is essentially removed leaving behind a graphic symbol that resembles the desired character. It is noted that Remain's remainder corresponds to applicant's combination and Remain's combination corresponds to applicant's remainder. Applicant has effectively reversed the Remain's parts. It is also noted that both remainder and the combination represent one or more zones from a plurality of zones and the remainder and the combination added together are the same as the plurality of zones.

Ramain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols with the stylus so that the combination of the plurality of zones indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder can be essentially removed leaving behind a graphic symbol that resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted and thus is also selected. Therefore, the remainder may also be the combination and vice versa.

Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the

respective combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted with the remainder area of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

Therefore, in view of Curtin's patent, which has been issued long time ago, one of the ordinary skill in the art would have used Curtin's idea of selecting a combination of one or more bars to be deactivated while the remainder remain illuminated. Having the combined teaching of Curtin and Ramain, one of the ordinary skill in the art would have selected a combination of one or more zones of Ramain so that the remainder is illuminated while the combination of one or more zones being selected to be un-illuminated or deactivated from illumination in view of Curtin so that the combination is essentially removed leaving behind a graphic symbol that resembles the desired character such as the character "A" (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

One of the ordinary skill in the art would have been motivated to construct a method for generating alphanumeric characters in accordance with Curtin's selection of the combination of bars so that the remainder represents the desired alphanumeric character (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-33 and 41-42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

For example, the base claim 1 recites "a user's selection of a combination of one or more zones from a plurality of zones". A combination of one or more zones are selected means that any combination of one or more zones could be selected by the user, as opposed to only some specific combination of zones from a plurality of combinations of one or more zones could be selected. There are so many combinations that can be constructed by selecting one or more zones from the plurality of zones. Not all combinations are selectable. For example, applicant's Fig. 7 only presents a limited number of combinations that are selectable, i.e., a total of 36 combinations that are selectable. Therefore, the metes and bounds of the coverage of at least base claim 1 cannot be ascertained.

The base claim 8 recites "instructing a user to select a combination, of one or more of said plurality of selection zones, that represents the user's desired alphanumeric character". According applicant's specification, for example, Fig. 7, the combination is selected and the remainder represents the user's desired alphanumeric character, not the combination. Applicant

clearly failed to comply with the written description requirement that requires the selected combination to represent the user's desired alphanumeric character. Applicant's claim 8 further recites "wherein the mapping is based on a) representing each character as a juxtaposition of some of a plurality of open and closed curves, the plurality of selection zones being fewer than the plurality of curves." However, the plurality of selection zones are not fewer than the plurality of curves, according to applicant's specification. For example, for the letter "a", there are two selection zones (see Fig. 7), but there are two curves associated with the letter "a" (See applicant's claim 27). Therefore, the metes and bounds of the coverage of at least base claim 8 cannot be ascertained.

The base claim 10 recites "using some of a plurality of graphic symbols that represent an entire alphabet, wherein each graphic symbol visually suggests a separate letter of the alphabet and is made of one or more marks, in a receiving area, none of which form a closed shape". From this recitation of the claim 10 and according to applicant's specification, "each graphic symbol" is not well defined, it could refer to all of the zones or some of the zones associated with each alphanumeric character. Moreover, applicant's claim 10 further recites "none of which form a closed shape." The graphic symbols as shown in Fig. 7 at least forms one or more closed curves. Therefore, the metes and bounds of the coverage of at least base claim 10 cannot be ascertained.

The base claim 13 recites "considering a receiving area that bears a combination of one or more marks as representing an alphanumeric character, wherein each mark...that suggest a feature of the character through a complementary rather than direct relationship with that feature". First of all, from the claim limitation set forth in the claim 13, what "suggest a feature

of the character" cannot be ascertained, be it "a receiving area" or "a combination of one or more marks". Moreover, a combination of one or more marks such as the selected one or more zones, although arguably suggesting a feature of the character, but it does not represent an alphanumeric character as earlier recited in the claim. If applicant means that the one or more marks are the remainder zones representing an alphanumeric character, it cannot be said that the remainder of the zones does not suggest a feature of the character through a complementary rather than direct relationship with that feature. Therefore, the metes and bounds of the coverage of at least base claim 13 cannot be ascertained.

For example, the base claim 21 recites "maps each of a plurality of alphanumeric characters to a respective selection of one or more regions from a plurality of regions". According to applicant's specification, it cannot be said that each of the plurality of alphanumeric characters is mapped to a respective selection of one or more regions from a plurality of regions. Therefore, the metes and bounds of the coverage of at least base claim 21 cannot be ascertained.

For example, the base claim 29 recites "logic that implements an association between each of a plurality of alphanumeric characters and a respective combination of one or more regions selected from a matrix of regions that have been defined on the display screen, via a user's manual action upon the touch-sensitive display screen, so that if the respective combination were to be visually contrasted with the remainder of the matrix then said remainder and not the respective combination would resemble one of the alphanumeric characters; and a power source coupled to power the display screen and said logic". There are many combinations of one or more regions selected from a matrix of regions that could have been defined on the

display screen. Not any combination can be associated with an alphanumeric character. Therefore, "logic that implements an association..." can not be "between each of a plurality of alphanumeric characters" and any respective combination of one or more regions selected from a matrix of regions. Therefore, the metes and bounds of the coverage of at least base claim 29 cannot be ascertained.

For example, the base claim 41 recites "contrasting a combination of one or more of the plurality of zones with a remainder of the plurality of zones, the combination having been selected by a user to represent a desired alphanumeric character, wherein the plurality of zones and the combination are such that, when contrasted, the remainder and not the selected combination resembles the desired character". Since there are so many combinations of one or more regions that can be from a plurality of zones, there could be multiple combinations that represent a desired alphanumeric character. However, applicant's specification only describes one specific combination that represents a particular alphanumeric character. Applicant's specification failed to comply with the written description requirement that would require contrasting any combination of one or more of the plurality of zones with a remainder of the plurality of zones, the combination having been selected by a user to represent a desired alphanumeric character, wherein the plurality of zones and the combination are such that, when contrasted, the remainder and not the selected combination resembles the desired character" set forth in the base claim 41. Therefore, the metes and bounds of the coverage of at least base claim 41 cannot be ascertained.

The claim 42 is subject to the same rationale of rejection set forth in the claim 41.

To comply with the "written description" requirement of 35 U.S.C. 112, first paragraph, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filling date sought, he or she was in possession of the invention. The invention is, for purposes of the "written description" inquiry, whatever is now claimed. Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). For purposes of written description, one shows "possession" by descriptive means such as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. Lockwood v. American Airlines, Inc., 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). Such descriptive means cannot be found in the disclosure for the inventions of the base claim 1, 16, 31, 34, 39, 42 and 51.

Claims 2-7 depend upon the base claim 1 and are rejected due to their dependency on the base claim 1.

The claim 9 depends upon the base claim 8 and is rejected due to their dependency on the claim 8.

The claims 11-12 depend upon the base claim 10 and are rejected due to their dependency on the claim 10.

The claims 14-20 depend upon the base claim 13 and are rejected due to their dependency on the claim 13.

The claims 22-28 depend upon the base claim 21 and are rejected due to their dependency on the claim 21.

The claims 30-33 depend upon the base claim 29 and are rejected due to their dependency on the claim 29.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-33 and 41-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For example, the base claim 1 recites "a user's selection of a combination of one or more zones from a plurality of zones". A combination of one or more zones are selected means that any combination of one or more zones could be selected by the user, as opposed to only some specific combination of zones from a plurality of combinations of one or more zones could be selected. There are so many combinations that can be constructed by selecting one or more zones from the plurality of zones. Not all combinations are selectable. For example, applicant's Fig. 7 only presents a limited number of combinations that are selectable, i.e., a total of 36 combinations that are selectable. Therefore, applicant failed to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The base claim 8 recites "instructing a user to select a combination, of one or more of said plurality of selection zones, that represents the user's desired alphanumeric character". According applicant's specification, for example, Fig. 7, the combination is selected and the remainder represents the user's desired alphanumeric character, not the combination. Applicant clearly failed to comply with the written description requirement that requires the selected combination to represent the user's desired alphanumeric character. Applicant's claim 8 further recites "wherein the mapping is based on a) representing each character as a juxtaposition of

some of a plurality of open and closed curves, the plurality of selection zones being fewer than the plurality of curves." However, the plurality of selection zones are not fewer than the plurality of curves, according to applicant's specification. For example, for the letter "a", there are two selection zones (see Fig. 7), but there are two curves associated with the letter "a" (See applicant's claim 27). Therefore, applicant failed to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The base claim 10 recites "using some of a plurality of graphic symbols that represent an entire alphabet, wherein each graphic symbol visually suggests a separate letter of the alphabet and is made of one or more marks, in a receiving area, none of which form a closed shape". From this recitation of the claim 10 and according to applicant's specification, "each graphic symbol" is not well defined, it could refer to all of the zones or some of the zones associated with each alphanumeric character. Moreover, applicant's claim 10 further recites "none of which form a closed shape." The graphic symbols as shown in Fig. 7 at least forms one or more closed curves. Therefore, applicant failed to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The base claim 13 recites "considering a receiving area that bears a combination of one or more marks as representing an alphanumeric character, wherein each mark...that suggest a feature of the character through a complementary rather than direct relationship with that feature". First of all, from the claim limitation set forth in the claim 13, what "suggest a feature of the character" cannot be ascertained, be it "a receiving area" or "a combination of one or more marks". Moreover, a combination of one or more marks such as the selected one or more zones, although arguably suggesting a feature of the character, but it does not represent an alphanumeric

character as earlier recited in the claim. If applicant means that the one or more marks are the remainder zones representing an alphanumeric character, it cannot be said that the remainder of the zones does not suggest a feature of the character through a complementary rather than direct relationship with that feature. Therefore, applicant failed to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For example, the base claim 21 recites "maps each of a plurality of alphanumeric characters to a respective selection of one or more regions from a plurality of regions". According to applicant's specification, it cannot be said that each of the plurality of alphanumeric characters is mapped to a respective selection of one or more regions from a plurality of regions. Therefore, applicant failed to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For example, the base claim 29 recites "logic that implements an association between each of a plurality of alphanumeric characters and a respective combination of one or more regions selected from a matrix of regions that have been defined on the display screen, via a user's manual action upon the touch-sensitive display screen, so that if the respective combination were to be visually contrasted with the remainder of the matrix then said remainder and not the respective combination would resemble one of the alphanumeric characters; and a power source coupled to power the display screen and said logic". There are many combinations of one or more regions selected from a matrix of regions that could have been defined on the display screen. Not any combination can be associated with an alphanumeric character. Therefore, "logic that implements an association..." can not be "between each of a plurality of alphanumeric characters" and any respective combination of one or more regions selected from a

matrix of regions. Therefore, applicant failed to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For example, the base claim 41 recites "contrasting a combination of one or more of the plurality of zones with a remainder of the plurality of zones, the combination having been selected by a user to represent a desired alphanumeric character, wherein the plurality of zones and the combination are such that, when contrasted, the remainder and not the selected combination resembles the desired character". Since there are so many combinations of one or more regions that can be from a plurality of zones, there could be multiple combinations that represent a desired alphanumeric character. However, applicant's specification only describes one specific combination that represents a particular alphanumeric character. Applicant's specification failed to comply with the written description requirement that would require contrasting any combination of one or more of the plurality of zones with a remainder of the plurality of zones, the combination having been selected by a user to represent a desired alphanumeric character, wherein the plurality of zones and the combination are such that, when contrasted, the remainder and not the selected combination resembles the desired character" set forth in the base claim 41. Therefore, applicant failed to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim 42 is subject to the same rationale of rejection set forth in the claim 41.

Claims 2-7 depend upon the base claim 1 and are rejected due to their dependency on the base claim 1.

The claim 9 depends upon the base claim 8 and is rejected due to their dependency on the claim 8.

The claims 11-12 depend upon the base claim 10 and are rejected due to their dependency on the claim 10.

The claims 14-20 depend upon the base claim 13 and are rejected due to their dependency on the claim 13.

The claims 22-28 depend upon the base claim 21 and are rejected due to their dependency on the claim 21.

The claims 30-33 depend upon the base claim 29 and are rejected due to their dependency on the claim 29.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramian in view of Curtin et al US Patent No. 4,727,357 (hereinafter Curtin).

Re Claims 1, 21-26, 29-30, 33, 34-42:

(a) Ramian teaches a method for generating a desired alphanumeric character, comprising:

Receiving a user's selection of a combination of one or more zones from a plurality of zones, wherein the plurality of zones abut one another, eliminating intervening spaces (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149); and

Contrasting the combination with the remainder of said plurality of zones so that the combination is essentially **selected** leaving behind a graphic symbol that resembles the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

(b) However, Ramian does not implicitly teach, "the remainder resembles the desired character".

(c) Curtin teaches the claim limitation of "the combination is essentially removed leaving behind a graphic symbol that resembles the desired character". For example, Curtin discloses in Fig. 6 un-selecting the bars 14 and 16 so that the remainder bars 6, 8, 10, 12, 20, 18, 22 and 24 represent or resemble the desired character "A". See column 2, lines 46-67 and column 3, lines 1-20. It is stated, "...**a user contacts selected normally activated bars to turn off their lights**. It has been found in developing the present invention that **the alphanumeric characters can be more rapidly formed by placing at least the bars forming the outer box pattern and possibly the bars extending horizontally across such box pattern in a normally activated condition. In this manner, it normally takes fewer key strokes to form each alphanumeric character**." That is to say, the bars, 6, 8, 10, 12, 20, 18, 22, 24, 14, 16 are normally lighted. The alphanumeric character "A" is formed with a fewer key strokes on the bars 14, 16 to deactivate the lights. See also column 4, lines 30-67 and column 5, lines 34-44.

(d) It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Ramain's invention because Ramain's remainder of the plurality of zones corresponds to applicant's combination of one or more zones from the plurality of zones and Ramain's selection of the plurality of zones corresponds to applicant's remainder of the plurality of zones. Ramain teaches that, if the combination is contrasted with the remainder of said plurality of zones. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of zones by illuminating the curves within such combination which must be contrasted with the remainder of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

On the other hand, in Ramain, by positively illuminating the curves within a combination of one or more zones from a plurality of zones, Ramain thereby selects the remainder of the plurality of zones as applicant's combination of one or more zones from a plurality of zones and therefore Ramain implicitly teaches contrasting Ramain's remainder with the Remain's combination of said plurality of zones so that the remainder is essentially removed leaving behind a graphic symbol that resembles the desired character. It is noted that Remain's remainder corresponds to applicant's combination and Remain's combination corresponds to applicant's remainder. Applicant has effectively reversed the Remain's parts. It is also noted that both remainder and the combination represent one or more zones from a plurality of zones and the remainder and the combination added together are the same as the plurality of zones.

Ramain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols with the stylus so that the combination of the plurality of zones

indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder can be essentially removed leaving behind a graphic symbol that resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted and thus is also selected. Therefore, the remainder may also be the combination and vice versa.

Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted with the remainder area of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

Therefore, in view of Curtin's patent, which has been issued long time ago, one of the ordinary skill in the art would have used Curtin's idea of selecting a combination of one or more bars to be deactivated while the remainder remain illuminated. Having the combined teaching of Curtin and Ramain, one of the ordinary skill in the art would have selected a combination of one or more zones of Ramain so that the remainder is illuminated while the combination of one or more zones being selected to be un-illuminated or deactivated from illumination in view of Curtin so that the combination is essentially removed leaving behind a graphic symbol that resembles the desired character such as the character "A" (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for

processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

(e) One of the ordinary skill in the art would have been motivated to construct a method for generating alphanumeric characters in accordance with Curtin's selection of the combination of bars so that the remainder represents the desired alphanumeric character (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

Claim 2:

The claim 2 encompasses the same scope of invention as that of the claim 1 except additional claim limitation that the plurality of zones are arranged so that the periphery around them is the maximum extent of every graphic symbol that appears when a combination of one or more zones is contrasted. However, Ramian and Curtin further disclose the claim limitation of the plurality of zones are arranged so that the periphery around them is the maximum extent of every graphic symbol that appears when a combination of one or more zones is contrasted (*Ramain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols with the stylus so that the remainder of the unselected areas of the plurality of zones indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted. Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones*

not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted with the remainder area of zones so that the drawn curves resemble the desired character. See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 3:

The claim 3 encompasses the same scope of invention as that of the claim 1 except additional claim limitation of the plurality of zones forming a matrix of solid elements that are of the same color. However, Ramian and Curtin further disclose the claim limitation of the plurality of zones forming a matrix of solid elements that are of the same color (Figs. 1-3). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 4:

The claim 4 encompasses the same scope of invention as that of the claim 3 except additional claim limitation of the matrix having twelve zones arranged in four rows and three columns. However, Ramian and Curtin further disclose the claim limitation of the matrix having

twelve zones arranged in four rows and three columns (Figs. 1-2). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 5:

The claim 5 encompasses the same scope of invention as that of the claim 3 except additional claim limitation that the respective combination of zones has no more than two zones, and wherein each one of the 26 letters of the English alphabet and 10 decimal numerals is represented by a different combination of zones. However, Ramian and Curtin further disclose the claim limitation that the respective combination of zones has no more than two zones, and wherein each one of the 26 letters of the English alphabet and 10 decimal numerals is represented by a different combination of zones (*This is because the character "z" can be traced within one zone of the matrix and all the English alphabets and 10 decimal numerals can be represented by the matrix; See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149).* See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 6:

The claim 6 encompasses the same scope of invention as that of the claim 3 except additional claim limitation of providing a plurality of mnemonic aids that represent a plurality of different alphanumeric characters, wherein each aid being depicted by a matrix of the plurality of zones that shows the respective combination. However, Ramian and Curtin further disclose the claim limitation of providing a plurality of mnemonic aids that represent a plurality of different alphanumeric characters, wherein each aid being depicted by a matrix of the plurality of zones that shows the respective combination (*See Figs. 1-3; Paragraph 007, 0030, 0043, 0072, 0085, 0108, 0109, 0130, 0139, 0147, 0149).* See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 7:

The claim 7 encompasses the same scope of invention as that of the claim 1 except additional claim limitation of visually contrasting a combination of one or more of said plurality of zones with unselected ones of said plurality of zones, as the combination is being selected by a person. However, Ramian and Curtin further disclose the claim limitation of visually contrasting a combination of one or more of said plurality of zones with unselected ones of said plurality of zones, as the combination is being selected by a person. Ramian discloses visually contrasting the combination of zones with the selected curves/traces illuminated with the unselected zones un-illuminated wherein the combination of the zones are selected by a person with for example a stylus (*See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149*). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5

contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 8:

Ramian and Curtin teach a method for generating alphanumeric characters, comprising:

Providing a plurality of selection zones (*See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149*);

Instructing a user to select a combination, of one or more of said plurality of selection zones, that represents the user's desired alphanumeric character (the user selects a plurality of selection zones by a stylus by drawing curves/traces within the selection zones that represent the user's desired character; *See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149);*

Providing a mapping between said selected combination and the desired alphanumeric character (e.g., Paragraph 0130), wherein the mapping is based on (a) representing each character as a juxtaposition of some of a plurality of open and closed curves (Figs. 1-2), the plurality of selection zones being fewer than the plurality of curves (Figs. 1-2 wherein the characters "a" and "z" being drawn with more curves than the selection zones), (b) creating a template containing all of the plurality of open and closed curves (e.g., Paragraph 0130), and c) aligning the template with the plurality of selection zones (e.g., Paragraph 0130).

See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 9:

The claim 9 encompasses the same scope of invention as that of the claim 8 except additional claim limitation of enabling the user to select one of the selection zones in the combination, by one of a) depressing a respective push-button and (b) touching a respective region in a touch-sensitive surface. However, Ramian and Curtin teach enabling the user to select one of the zones by using a stylus in a touch-sensitive surface (*Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149*). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 10:

Ramian and Curtin teach a method for textual communication, comprising:

Forming words and phrases using some of a plurality of graphic symbols that represent an entire alphabet (e.g., Paragraph 0100), wherein each graphic symbol visually suggests a separate letter of the alphabet and is made of one or more marks, in a receiving area, none of which form a closed shape (*Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 0139, 0147, 0149*). For example, the traces for the letters "c" and "z" does not form a closed shape. See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 11:

The claim 11 encompasses the same scope of invention as that of the claim 10 except additional claim limitation of a word being formed by a user marking a separate receiving area for each graphic symbol that constitutes the word as if the user were writing the word on a sheet of paper. However, Ramian and Curtin further disclose the claim limitation of a word being formed by a user marking a separate receiving area for each graphic symbol that constitutes the word as if the user were writing the word on a sheet of paper (Figs. 1-2; Pages 4-8). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Claim 12:

The claim 12 encompasses the same scope of invention as that of the claim 11 except additional claim limitation of the user using a writing instruct to mark a form sheet on which a plurality of separate receiving areas have been delineated. However, Ramian and Curtin further disclose the claim limitation of the user using a writing instruct to mark a form sheet on which a plurality of separate receiving areas have been delineated (Figs. 1-2 and Pages 4-8). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Re Claims 13-15:

Ramian and Curtin teach a method of textual communication, comprising:

Considering a receiving area that bears a combination of one or more marks as representing an alphanumeric character, wherein each mark has a given form (Figs. 1-2), position and orientation, within the receiving area, that suggest a feature of the character through a complementary rather than direct relationship with that feature (*Ramain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols with the stylus so that the remainder of the unselected areas of the plurality of zones indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted. Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted with the remainder area of zones so that the drawn curves resemble the desired character. See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149*). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

Re Claims 16-20 and 27-28 and 31-32:

Ramain and Curtin teach that, if the combination is contrasted with the remainder of said plurality of zones. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of zones by illuminating the curves within such combination which must be contrasted with the remainder of zones so that the drawn the curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149). See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected zones for generating graphic symbols with the stylus so that the remainder of the unselected zones resembles the desired character because Ramain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols with the stylus so that the remainder of the unselected areas of the plurality of zones indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted. Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted

with the remainder area of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

Curtin teaches the claim limitation of "the combination is essentially removed leaving behind a graphic symbol that resembles the desired character". For example, Curtin discloses in Fig. 6 un-selecting the bars 14 and 16 so that the remainder bars 6, 8, 10, 12, 20, 18, 22 and 24 represent or resemble the desired character "A". See column 2, lines 46-67 and column 3, lines 1-20. It is stated, "...**a user contacts selected normally activated bars to turn off their lights**. It has been found in developing the present invention that **the alphanumeric characters can be more rapidly formed by placing at least the bars forming the outer box pattern and possibly the bars extending horizontally across such box pattern in a normally activated condition. In this manner, it normally takes fewer key strokes to form each alphanumeric character**." That is to say, the bars, 6, 8, 10, 12, 20, 18, 22, 24, 14, 16 are normally lighted. The alphanumeric character "A" is formed with a fewer key strokes on the bars 14, 16 to deactivate the lights. See also column 4, lines 30-67 and column 5, lines 34-44.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Ramain's invention because Ramain's remainder of the plurality of zones corresponds to applicant's combination of one or more zones from the plurality of zones and Ramain's selection of the plurality of zones corresponds to applicant's remainder of the plurality of zones. Ramain teaches that, if the combination is contrasted with the remainder of said plurality of zones. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the respective combination of zones by illuminating the curves within such combination which must be contrasted with the remainder of

zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

On the other hand, in Ramain, by positively illuminating the curves within a combination of one or more zones from a plurality of zones, Ramain thereby selects the remainder of the plurality of zones as applicant's combination of one or more zones from a plurality of zones and therefore Ramain implicitly teaches contrasting Ramain's remainder with the Remain's combination of said plurality of zones so that the remainder is essentially removed leaving behind a graphic symbol that resembles the desired character. It is noted that Remain's remainder corresponds to applicant's combination and Remain's combination corresponds to applicant's remainder. Applicant has effectively reversed the Remain's parts. It is also noted that both remainder and the combination represent one or more zones from a plurality of zones and the remainder and the combination added together are the same as the plurality of zones.

Ramain teaches selecting curves and traces along a selected plurality of zones for generating graphic symbols with the stylus so that the combination of the plurality of zones indicate the desired character by illuminating the selected curves and traces with the selected plurality of zones and therefore the remainder can be essentially removed leaving behind a graphic symbol that resembles the desired character because the remainder of the zones except the illuminated curves/traces is not highlighted and thus is also selected. Therefore, the remainder may also be the combination and vice versa.

Moreover, Ramian teaches the combination is contrasted with the remainder area of said plurality of zones not including the illuminated curves and traces. For example, the characters "a" and "z" in Fig. 2 are drawn within a plurality of zones so that it can suggest to a person the

respective combination of curves/traces within the zones by illuminating the curves within such combination which must be contrasted with the remainder area of zones so that the drawn curves resemble the desired character (See Figs. 1-3; Paragraph 007, 0030, 00430072, 0085, 0108, 0109, 0130, 01390147, 0149).

Therefore, in view of Curtin's patent, which has been issued long time ago, one of the ordinary skill in the art would have used Curtin's idea of selecting a combination of one or more bars to be deactivated while the remainder remain illuminated. Having the combined teaching of Curtin and Ramain, one of the ordinary skill in the art would have selected a combination of one or more zones of Ramain so that the remainder is illuminated while the combination of one or more zones being selected to be un-illuminated or deactivated from illumination in view of Curtin so that the combination is essentially removed leaving behind a graphic symbol that resembles the desired character such as the character "A" (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

One of the ordinary skill in the art would have been motivated to construct a method for generating alphanumeric characters in accordance with Curtin's selection of the combination of bars so that the remainder represents the desired alphanumeric character (See Curtin Figs. 1, 6 for how the characters being entered. Fig. 5 contains the system having the processor, RAM & ROM for processing the character input method. Column 2, lines 46-67, column 3, lines 1-20, column 4, lines 30-67, column 5, lines 34-44).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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jcw

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